

PROJECT REFERENCE



BOYLE COUNTY FISCAL COURT – KY

KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

The county's aging infrastructure had many energy consuming components that were in need of replacement, and were costly to maintain. This, coupled with rising utility costs, gave the Boyle County the opportunity to pursue Performance Contracting as a means to achieve their goals.

SOLUTIONS

The project covered upgrades to 5 facilities. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits and occupancy sensors
- ▶ Installation of an energy-efficient multi-zone Variable Refrigerant Flow system at the Courthouse
- ▶ Insulated the Courthouse attic with efficient, long lasting blown-in insulation
- ▶ Centralized building automation systems
- ▶ Installed gas-fired generators at the Courthouse and Jail
- ▶ Retro-commissioned the refrigeration equipment at the Jail to increase efficiency and extend the system life-cycle
- ▶ Replaced (22) roof mounted package HVAC units at the Jail with high efficiency roof top units with economizers and environmentally friendly R-410A refrigerant
- ▶ Implemented water conservation measures at the Jail by installing low flush combination units and showers



"I think this is a solution to a problem that has plagued the Courthouse for a long-time. The Perfection Group has been a great partner in identifying needs, and providing cost effective solutions to meet those needs."

- Harold McKinney, Judge Executive

PROJECT SUMMARY

LOCATION: Danville, Kentucky

PROJECT COST: \$2,800,000

ANNUAL GUARANTEED SAVINGS: \$44,805

ANNUAL OPERATIONAL SAVINGS: \$41,000

TOTAL PROGRAM SAVINGS: \$4,047,474

OTHER BENEFITS: Utility Rebates

Project Completed: February 2015

JESSAMINE COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

After being approached by Jessamine County to help them save money, Perfection Group performed an energy analysis and determined that the county had multiple savings opportunities due to the aging infrastructure in many of their facilities. Also, the traffic outside the courtroom made the windows rattle so bad that it was difficult to conduct court meetings.

SOLUTIONS

The project covered upgrades to 6 facilities. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits and occupancy sensors
- ▶ New windows at the Courthouse
- ▶ Retro-commission existing HVAC systems
- ▶ Building automation at the Courthouse and Detention Center
- ▶ Water conservation at the Detention Center
- ▶ Replacement of boiler and chiller at the Courthouse



“Part of the project’s positive cash flow savings can be used for additional energy savings improvements or other County projects, allowing us to continue to reap the benefits indefinitely.”

- William Neal Cassity, Judge Executive

PROJECT SUMMARY

LOCATION: Nicholasville, Kentucky

PROJECT COST: \$799,788

ANNUAL GUARANTEED SAVINGS: \$53,000

ANNUAL OPERATIONAL SAVINGS: \$11,466

TOTAL PROGRAM SAVINGS: \$1,290,464

OTHER BENEFITS: The Courthouse received an Energy Star award. Also 104% of guaranteed energy savings were achieved.

Project Completed: 2011

PROJECT REFERENCE

BOURBON COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

Bourbon County, located in the heart of Thoroughbred country, was looking for methods to reduce their energy and operational expenses. Although Bourbon County had made improvements to their facilities over the years, there was still potential for increased benefits from an Energy Savings Performance Contract. They also wanted to make these changes to offset the tax revenue loss from potential Industrial/Commercial businesses closing or migrating to other areas.

SOLUTIONS

The project covered upgrades to (7) facilities including: Courthouse, Judicial Center, Regional Jail, Road Department, Fire Department, Legion Park, and the Farmers Market. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits and occupancy sensors
- ▶ New controls in the facilities
- ▶ Retro-commission existing HVAC systems
- ▶ Centralized building automation system
- ▶ Installed new overhead door at the Road Department
- ▶ Installed new windows at the Fire Department



“One of the things I loved about Perfection Group is that they provided the court with a solution for our facilities without any upfront engineering cost to the county.”

- Mark Offutt, County Magistrate

PROJECT SUMMARY

LOCATION: Paris, Kentucky

PROJECT COST: \$585,000

ANNUAL GUARANTEED SAVINGS: \$24,728

ANNUAL OPERATIONAL SAVINGS: \$34,350

TOTAL PROGRAM SAVINGS: \$1,161,410

OTHER BENEFITS: Perfection secured a \$100,000 Energy Efficiency Grant from the Department for Local Government. Courthouse received Energy Star Recognition.

Project Completed: 2014

PROJECT REFERENCE

PIKE COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



“We have been looking for a long time to reduce our long-term energy costs. We dealt with two companies in the past, but neither could supply the fiscal court with the complete verification with savings and shelter for the county that Perfection could if there were to be a shortfall after the first year.”

- Wayne T. Rutherford, Judge Executive

CHALLENGES

The county was paying nearly \$600,000 annually in electric and gas, and utility costs were continually rising. Much of the aging infrastructure was costly to maintain.

SOLUTIONS

The project covered upgrades to 8 facilities including: (3) Courthouses, the Hall of Justice, multiple Community Centers, a Fire Department, the Animal Shelter, the Road Garage, and various street lighting. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits and occupancy sensors
- ▶ Replacement of Cooling Tower, Boiler, Domestic Hot Water Boiler, various Split Systems
- ▶ Retro-commission existing HVAC systems
- ▶ Centralized building automation system
- ▶ Vending-mizer controls

PROJECT SUMMARY

LOCATION: Pikeville, KY

PROJECT COST: \$1,300,000

ANNUAL GUARANTEED SAVINGS: \$65,000

ANNUAL OPERATIONAL SAVINGS: \$16,442

TOTAL PROGRAM SAVINGS: \$2,264,136

OTHER BENEFITS: The Main Courthouse was awarded the ENERGY STAR AWARD. Year one savings were more than double after the first Measurement & Verification.

Project Completed: 2013

PROJECT REFERENCE

ADAIR COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



“We had to do something to fix our HVAC at the Regional Jail. Perfection provided the best way of getting that done with a paid from savings approach.”

- Ann Melton, County Judge Executive

CHALLENGES

Adair County, located in the heart of south central Kentucky, was looking for a way to fix the lingering HVAC and water issues at the Regional Jail. The mechanical equipment was aged and failing, causing many headaches for the jail staff. It was costing the tax payers serious dollars to keep repairing old outdated HVAC equipment.

SOLUTIONS

This project updated all the mechanical and electrical equipment in the Regional Jail. This solution provided Adair County a means to get much needed work done with no increase to the local tax payers. This paid from savings approach will save Adair County thousands of dollars over the next 10 years, allowing them to use the capital dollars on other needed projects throughout the county.

- ▶ New vending machine controls.
- ▶ New HVAC equipment including: Boiler, Condensing Unit, Air Handler and VAV's, Control HVAC.
- ▶ New Building Automation System.
- ▶ New low flush technology on all combination units.
- ▶ New low usage showers and controls.
- ▶ New interior and exterior lighting.

PROJECT SUMMARY

LOCATION: Columbia, Kentucky

PROJECT COST: \$457,000

ANNUAL GUARANTEED SAVINGS: \$8,360
ANNUAL OPERATIONAL SAVINGS: \$4,300
TOTAL PROGRAM SAVINGS: \$360,433

OTHER BENEFITS: \$2,119 in rebates from Kentucky Utilities. Awarded \$100,000 in Energy Efficiency and Conservation Grants by the DLG.

Project Completed: 2014

PROJECT REFERENCE

CARTER COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

The county's aging courthouse HVAC and the Detention Centers continuous HVAC failures led them to working with Perfection Group to help fix this problem. This, coupled with rising utility costs, gave the Carter County the opportunity to pursue Performance Contracting as a means to achieve their goals. The project construction is expected to being on March 1, 2016.

SOLUTIONS

The project is covering 3 facilities. Energy conservation measures that are being implemented are as follows:

- ▶ Lighting retrofits and occupancy sensors
- ▶ Installation of an energy-efficient multi-zone Variable Refrigerant Flow system at the Courthouse
- ▶ Centralized building automation systems
- ▶ Retro-commissioned the refrigeration equipment at the Jail to increase efficiency and extend the system life-cycle
- ▶ Replaced (30) water source heat pumps at the Detention Center with environmentally friendly R-410A refrigerant
- ▶ Implemented water conservation measures at the Jail by installing low flush combination units and showers
- ▶ Retro-fitting (9) county vehicles with Liquid Propane to achieve major fuel savings
- ▶ Implementing a Fleet Management Program to reduce operating costs on aged vehicles



“Our Detention Center is a very important source of revenue for Carter County, if we don't fix the HVAC it could jeopardize our state and federal inmate population and in turn lose much needed revenues. This ESPC will address just that and other important capital projects that need done throughout our facilities.”

- Mike Malone, Judge Executive

PROJECT SUMMARY

LOCATION: Grayson, Kentucky

PROJECT COST: \$1,755,373

ANNUAL GUARANTEED SAVINGS: \$34,105

ANNUAL OPERATIONAL SAVINGS: \$40,000

ANNUAL PROPANE SAVINGS: \$16,200

ANNUAL FLEET SAVINGS: \$18,684

TOTAL PROGRAM SAVINGS:

OTHER BENEFITS: Utility Rebates

Project to be completed: Nov. 2016

PULASKI COUNTY FISCAL COURT

KRS 45A.352 Energy Savings Performance Contract

PROJECT SUMMARY

PROJECT COST: \$4,560,782

ANNUAL GUARANTEED SAVINGS: \$102,650

ANNUAL OPERATIONAL SAVINGS: \$65,932

TOTAL PROGRAM SAVINGS: \$5,959,953

Project Completed: May 2017



SOLUTION: The project covered upgrades to 9 County Facilities and County Fleet solutions that drastically reduce the owning and operating costs to the county while providing brand new systems. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits and occupancy sensors
- ▶ Replacement of mechanical systems including: Chiller, boilers, packaged rooftop units, and split systems.
- ▶ Centralized building automation system
- ▶ New roof at the Courthouse
- ▶ Water Conservation including: new combi-units and showers at the Detention Center, and low volume sinks and toilets
- ▶ Vending machine controls
- ▶ Fleet management, GPS, and Alternative Fuels



“Perfection Group has gone through all of our facilities and found a way we can make updates including: roofing, lighting, and HVAC controls. It’s a win-win for everybody. We desperately need upgrades here at the Courthouse, and there would be no way that we could come up with the monies to make these improvements and repairs that need to be done. We are going to be responsible by going green with better facilities.”

- Steve Kelley, Judge Executive

PROJECT REFERENCE

GREENUP COUNTY FISCAL COURT – KY KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

The Greenup County Detention Center was built in 1989. The HVAC was aged, the plumbing fixtures was becoming a nightmare to maintain and find parts, and the roof had been leaking for years. Mike Worthington worked with Perfection Group, Inc. to initially provide a no cost facility audit to determine a needs assessment to take to the County Judge and Commissioners. Once all parties saw the current state of the Detention Center they knew an Energy Savings Performance Contract was exactly what they needed to update the facility.

SOLUTIONS

The project is covered the Detention Center only. Energy conservation measures that are being implemented are as follows:

- ▶ Upgraded all interior and exterior lighting to LED
- ▶ Installation of new Direct Digital Controls System
- ▶ Installed all new High Efficiency Roof Top HVAC Units
- ▶ Installed new High Efficiency Heat Pump for Control Room
- ▶ Installed all new High Efficiency Exhaust Fans on the roof
- ▶ Replaced Make Up Air Unit for the Kitchen
- ▶ Replaced the Washers and Dryers with new technology
- ▶ Installed new Refrigeration Units for the Kitchen
- ▶ Installed new High Efficiency Dishwasher for Kitchen
- ▶ Replaced the aged Generator with new unit
- ▶ Water Conservation
- ▶ Replaced roof with new Flood Coat & Gravel System
- ▶ Installed Vending Machine Controls



“Our Detention Center was getting to the point where we had to do something to update the building and also reduce our operating costs. The Perfection Group, Inc. came to us and provided Greenup County a turn-key facility solution that updated nearly all of our energy using devices.”

- Bobby Carpenter, Judge Executive

PROJECT SUMMARY

LOCATION: Greenup, Kentucky

PROJECT COST: \$1,495,060

ANNUAL GUARANTEED SAVINGS: \$31,591

ANNUAL OPERATIONAL SAVINGS: \$32,000

TOTAL PROGRAM SAVINGS: \$2,287,238

OTHER BENEFITS: Utility Rebates

Project to be completed: October 2017

CITY OF LOUISA – KY

KRS 45A.352 Energy Savings Performance Contract



CHALLENGES

The City of Louisa was approached by the Department for Local Government (DLG) to investigate an Energy Savings Performance Contract (ESPC). It was determined the city was a great candidate for an ESPC and the DLG helped Louisa advertise for bids. Several Energy Service Companies responded but ultimately Louisa chose to work with the Perfection Group, Inc. While Perfection was investigating/auditing the city it was determined that lots of infrastructure improvements were needed at the Water Treatment Plant and other city facilities.

SOLUTIONS

The project is covered the 6 facilities and other ECM's on city wide water meters and pump/lift stations. Energy conservation measures that are being implemented are as follows:

- ▶ Upgraded all



“Our Detention Center was getting to the point where we had to do something to update the building and also reduce our operating costs. The Perfection Group, Inc. came to us and provided Greenup County a turn-key facility solution that updated nearly all of our energy using devices.”

- Harold Slone, Mayor

PROJECT SUMMARY

LOCATION: Louisa, Kentucky

PROJECT COST: \$1,900,457

ANNUAL GUARANTEED SAVINGS: \$10,870

ANNUAL OPERATIONAL SAVINGS: \$90,854

METER REVENUE: \$54,236

TOTAL PROGRAM SAVINGS:

OTHER BENEFITS: Utility Rebates

Project Currently Under Construction

PROJECT REFERENCE

Mary Queen of the Holy Rosary – KY Energy Savings Performance Contract



CHALLENGES: Mary Queen of The Holy Rosary has been a customer of Perfection Group's for over 10 years. Over those 10 years Perfection has provided Mary Queen with HVAC Preventative Maintenance Services and performed HVAC service calls for the Church, Parish Office and Education Life Center. Mary Queen had seen an increase in their utility bills over the past year and they decided to look at ways to help offset those costs. After much investigation Mary Queen decided to see the feasibility of entering into an Energy Savings Performance Contract with Perfection Group to use energy savings to cover the costs of the upgrades.

SOLUTION: The project covered upgrades to 3 facilities including: the Church, Parish Office, and Education Life Center. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits installed at the Education Life Center, Church & Parish Office
- ▶ New HVAC for the Gym/Cafeteria
- ▶ Retro-commission existing HVAC systems at Education Life Center and Church
- ▶ New Direct Digital Controls at the Education Life Center and Church
- ▶ New Hot Water Heater for the Cafeteria/Kitchen
- ▶ Programmable Thermostats installed at the Parish office



"We had seen rising utility costs at our Gym/Cafeteria facility and under this Energy Savings Program we are able to address those issues with new lighting, heating and air conditioning."

- Walter Leachman, Business Manager

PROJECT SUMMARY

LOCATION: Mary Queen of the Holy Rosary

PROJECT COST: \$415,030

ANNUAL GUARANTEED SAVINGS: \$20,017

ANNUAL OPERATIONAL SAVINGS: \$1,500

TOTAL PROGRAM SAVINGS: \$42,601

OTHER BENEFITS: Utility Rebates